Thesis/ Reports Maschi, J. J.

### OHV OPPORTUNITIES ON THE STANISLAUS

John J. Maschi

### TABLE OF CONTENTS

	ABSTRACT	1
	EXECUTIVE SUMMARY	3
ı.	INTRODUCTION	5
	Statement of Purpose Basic Assumptions	8 8
II.	LITERATURE REVIEW	9
	Administration and Enforcement Demand Effects of Noise Effects on Private Property Effects on Soil and Vegetation Effects on Wildlife Information and Education Opportunities Public Involvement User Attitudes User Conflicts User Preferences	9 11 12 12 13 14 16 16 17 18
III.	METHODOLOGY	19
	Research Methods Development of Alternatives	19 28
IV.	DISCUSSION	31
	OHV Grant Projects Combined Use Statewide Motorized Trail System Recommendations Conclusion	33 35 38 40 44
	LITERATURE CITED	45
		1

AUTHOR:

JOHN J. MASCHI

Landscape Architect

Stanislaus National Forest

19777 Greenley Road Sonora, CA 95370 (209) 532-3671

TITLE:

OHV Opportunities on the Stanislaus

ABSTRACT:

This project develops a program for managing Off-Highway Vehicle (OHV) use on the Stanislaus National Forest. Existing OHV use, current management and applicable regulations are reviewed. Opportunities to provide OHV recreation while protecting our natural resources are documented. Public involvement, an essential ingredient of this project, includes a survey which is analyzed to compare the attitudes and preferences of both OHV users and non-users. The basic land allocations of open, closed and restricted are developed into alternatives for consideration in the Forest Land and Resource Management Plan. Finally, this project makes several recommendations for managing OHV use and offers suggestions for implementing a forestwide OHV Plan.

**KEYWORDS:** 

Off-Highway Vehicle (OHV); Off-Road Vehicle (ORV); Planning;

Public Involvement.

2 .

#### EXECUTIVE SUMMARY

During the 1960's, California witnessed a tremendous growth in the ownership and use of motorized vehicles designed mainly for recreational use away from roads and highways. For the purposes of this project, OHVs generally include dirt motorcycles, dune buggies, jeeps, 4WD vehicles, snowmobiles and ATVs. OHV and ORV are considered synonymous and refer to any motorized vehicle used for travel in areas normally inaccessible to conventional highway vehicles.

The Stanislaus National Forest encompasses 898,322 acres on the western slope of the Sierra Nevada Mountains. The Forest is within two hours of the San Francisco Bay Area and receives over two million recreation visitor days of use each year. The Forest OHV Plan was developed in 1976 in response to Executive Order 11644. The Plan established a large 170,000 acre open area. The remainder of the Forest, outside of Wilderness, was restricted.

Public involvement, an essential ingredient of this project, includes a survey which is analyzed to compare the attitudes and preferences of both OHV users and non-users. There were several unexpected results to the findings:

- a. Many OHV users believe that timber harvest is not compatible with their recreation activity. Based on the response to other questions it appears likely that users prefer a natural appearing forest.
- b. Users rank conflicts with private property and residential areas very high while non-users rank conflicts with hiking, camping and Wilderness much higher.
- c. Non-users rank camping and hiking conflicts with oversnow OHV use very high even though these activities do not normally occur at the same time of year.

Based on the results of the survey, the typical OHV user:

- Believes that different types of OHVs are not compatible in the same area.
- Visits the National Forest for (1) motorized recreation, (2) group outings,
   (3) enjoying nature and (4) viewing scenery.
- Believes OHV use is legitimate on certain National Forest lands.
- Supports the "designated routes only" concept for overland OHV use.
- Believes cross country OHV use should be allowed only in certain areas.
- Believes OHV use should be prohibited in certain areas.
- Supports the need for seasonal closures to protect resource values.
- Is a member of an OHV club or organization

Based on the results of the survey, the typical non-user:

- May or may not believe that OHV use is legitimate on National Forest lands.
- Believes that all OHV use should be "designated routes only".
- Believes OHV use should be prohibited in certain areas.
- Believes that oversnow OHV use may not be compatible with cross country skiing, downhill skiing and Wilderness.
- Supports the need for seasonal closures to protect resource values.

During the past decade, OHV use increased at a time when management had deteriorated due to drastic budget cuts. Many of the problems that have been associated with OHV use on the Stanislaus were due to lack of funding and the low visibility of the OHV program within the Forest Service. However, the situation has been improving in recent years with funding provided by the State of California. The OHV program now enjoys a higher visibility on the Forest while opportunities, restrictions and enforcement have all increased.

The Stanislaus National Forest is in the process of revising its Draft Forest Land and Resource Management Plan. The Forest Plan should evaluate and update the OHV Plan to include the policy and use changes that have occurred over the past decade. Each alternative in the Forest Plan should have OHV allocations that correspond to the basic land allocation and theme of the alternative. A survey of the management plans of all National Forests in California shows a wide range of preferred allocations for OHV use. Several Forests show all available areas as restricted to designated routes. Others identify small open areas. One Forest shows all available acres as open to cross country travel.

The terrain, soils, vegetation and private land mix on the Stanislaus National Forest do not themselves lend to open use. Users have indicated a preference for road and trail riding. This project recommends the Forest Plan preferred alternative show that:

- a. Wilderness, Semi-Primitive Non-Motorized (SPNM), Wild Rivers and other special areas (Research Natural Areas, Special Interest Areas, National Trails, etc.) are all closed to OHV travel.
- b. The remainder of the Forest is subject to OHV restrictions.

It appears that open cross country snowmobile use can occur over a minimum of 12" of packed snow without causing resource damage to the land. Impacts on wildlife will need to be monitored. The Forest should continue to increase its groomed snowmobile trail program. The majority of the users will be content to remain on the groomed trail system. Wheeled vehicles should be limited to surfaced roads during the winter season.

The Forest can provide significant opportunities for OHVs but only in concert with adequate restrictions, education and enforcement. Control of cross country use and management of OHV travel is dependent on the availability of a network of open roads and trails. Forest development roads, if properly managed, can add significant OHV opportunities. However, research has shown that OHV users will not be satisfied if most opportunities are on roads.

The literature indicates that OHV use in California has reached a peak and will continue at present levels through the year 2000. Therefore, the OHV program should not seek to increase or attract additional use, but rather seek to provide opportunities for existing use.

The Stanislaus National Forest can and will provide OHV opportunities in appropriate locations while protecting the resources. OHV problems are not going away, but they can be successfully managed. With these points firmly in mind, this Forest will become a "Center of Excellence" characterized by managers and employees with positive attitudes towards OHV recreation and a commitment of time and resources to manage its use.

#### I. INTRODUCTION

During the 1960's, California witnessed a tremendous growth in the ownership and use of motorized vehicles designed mainly for recreational use away from roads and highways. It is estimated that by 1971 there were 1.5 million of these vehicles in use throughout the State. In response to conflicts that were beginning to develop between users and non-users, the State enacted the Chappie-Z'berg Off-Highway Motor Vehicle Law of 1971. The law requires that all motor vehicles used off-highway and owned by California residents must be registered with the California Department of Motor Vehicles and display a valid "Green Sticker" registration tag. The Act also authorized that a portion of the registration fees be expended to provide areas and facilities dedicated to this type of use. The California Department of Parks and Recreation was assigned the responsibility to develop use areas and to administer a grant program that will allow other agencies within the State to develop facilities.

An Off-Highway Vehicle (OHV) is defined in Section 38006 and 38012 of the California Vehicle Code (CVC) and generally includes dirt motorcycles, dune buggies, jeeps, 4-wheel drive (4WD) vehicles, snowmobiles and All Terrain Vehicles (ATVs). OHV and ORV (Off-Road Vehicle) are considered synonymous and refer to any motorized vehicle used for travel in areas normally considered inaccessible to conventional highway vehicles. Go-carts, quarter midgets, dragsters, moto-cross motorcycles, bicycles, horses and motorhomes are not considered OHVs.

The Stanislaus National Forest encompasses 898,322 acres on the western slope of the Sierra Nevada Mountains in Central California. The Forest is within two hours driving time of the San Francisco Bay Area and receives over two million recreation visitor days of use each year. The Forest offers a wide range of recreational activities both motorized and non-motorized. Major attractions include: the Carson-Iceberg, Emigrant and Mokelumne Wilderness Areas; the Tuolumne Wild and Scenic River; Dodge Ridge and Mt. Reba Ski Areas; and several popular recreation lakes and use areas.

In 1972, President Richard Nixon signed Executive Order 11644. It requires that OHV areas and trails be located so as to minimize: damage to soil, watershed, vegetation and other resources of the public's land; harassment of wildlife or disruption of wildlife habitats; conflicts between OHVs and other existing or proposed recreational uses of the same or neighboring public lands. It also prohibits OHV use in officially designated Wilderness or Primitive Areas and called for the development of OHV use zones. These zones are: OPEN (cross country travel allowed with no restrictions); RESTRICTED (designated routes only, seasonal closures, etc.); and CLOSED (OHV use is prohibited).

The Stanislaus National Forest OHV Plan was developed in 1976 in response to Executive Order 11644. The Plan established a large 170,000 acre open area encompassing the bulk of the Groveland and Mi-Wok Ranger Districts. The 115,750 acres of the Emigrant and Mokelumne Wilderness Areas, which existed at that time, were closed to OHV use. The remainder of the Forest, including the entire Calaveras and Summit Ranger Districts, was placed in the restricted category. In the restricted area, overland OHV travel was limited to approximately 60

miles of designated routes, subject to seasonal closure. The Plan was later amended in 1979 to include several minor trail revisions.

Executive Order 11989, signed by President Carter in 1977, amended Executive Order 11644. It requires that whenever it is determined that OHV use "will cause or is causing considerable adverse effects on the soil, vegetation, wildlife, wildlife habitat, cultural or historic resources," the areas or trails must immediately be closed to the type of OHV causing the effects. It also authorized each land management agency to adopt a policy that portions of public land shall be closed to OHV use except those areas or trails which are suitable and specifically designated as open.

Since 1979, the Forest has experienced several major changes in OHV use and management:

Between 1979 and 1989, a total of \$16,853,450 has been awarded to the Forest Service in California through the State's OHV grant program. The Stanislaus National Forest has been granted \$867,500 during this period for a variety of OHV planning, development and maintenance projects.

Demand for OHV recreation has risen sharply and resource impacts from open cross country overland OHV use have been identified. Also, nationwide Forest Service policy for overland OHV use has shifted away from the open cross country concept towards management of road and trail opportunities called designated routes (OHVs designed for oversnow use can still travel cross country oversnow subject to certain restrictions).

The California Wilderness Act of 1984 created the 160,000 acre Carson-Iceberg Wilderness on portions of the Stanislaus and Toiyabe National Forests, located between Highways 108 and 4. Approximately 20 miles of motorcycle trail, designated in the 1977 OHV Plan within the Carson-Iceberg, were closed by this Act. The Act also added 55,000 acres of the Eldorado, Stanislaus and Toiyabe National Forests to the Mokelumne Wilderness, located between Highways 4 and 88. With these additions, the Stanislaus National Forest now has a total of 211,800 acres of Wilderness designated by Congress.

In September 1987, the huge Stanislaus Complex Fire burned over 147,000 acres. It was by far the largest fire in the history of the Forest. This fire burned throughout much of the open category on the Groveland and Mi-Wok Ranger Districts. Due to resource conditions, the burned area was closed to OHV use by special Forest Order.

As a result of the fires of 1987, the Forest is in the process of revising its Draft Forest Land and Resource Management Plan which was originally issued in 1986. The Forest Plan will evaluate and update the OHV Plan to include the policy and use changes that have occurred over the past decade.

During the past decade, OHV use increased at a time when the Forest's on-the-ground management had deteriorated due to drastic budget cuts. The Ranger Districts could not begin to handle the use or the conflicts and damage it created. Three types of management attitudes evolved and they are still represented today:

- A. Management recognizes OHV use is appropriate in certain places within the National Forests and makes a positive effort to provide opportunities for meeting those needs. Roads and trails are managed in concert with each other, closing roads with positive signing, using closed roads for both summer and winter recreation opportunities or for other resource use such as linear wildlife food plots.
- B. Management attitudes generally reflect a bias against OHV use. Management actions are characterized by strong emphasis upon elimination or control of use with closures and law enforcement programs. Signing is usually negative and closed roads are seldom considered for OHV use or other resource opportunities. Travel management consists of a road closure program.
- C. Management attitudes are apparent where OHV/travel management is recognized but given only passive attention for lack of knowledge about management techniques, lack of money, or the existence of other pressing priorities.

The Off-Highway Motor Vehicle Recreation Act of 1988 extended the State of California OHV Program through 1993. This Act established public safety, utilization of land and conservation of the land and resources as high priority activities. It requires the establishment of soil loss standards to be developed in consort with State Parks, Bureau of Land Management, Forest Service and the Soil Conservation Service by January 1, 1991. It also calls for the inventory of wildlife habitat and populations and a habitat protection program to sustain viable populations in the area. The legislation also authorized a California Statewide Motorized Trail System (SMTS) and requires the Forest Service to enforce OHV regulations. The law continues to authorize grants to the Forest Service for OHV facility development and operation. However, no new acquisition or development project can proceed unless: a wildlife habitat inventory and monitoring program is prepared and implemented; OHV law enforcement is implemented; and a soil survey is completed. By January 1, 1991, grantees will be required to implement a State "Generic Soil Loss Standard" monitoring program.

According to California State law, vehicles operated on federal and state highways or on county roads must be licensed for highway use. OHVs must be equipped with an approved muffler, brakes and a spark arrestor. A headlight and taillight are required for operation of an OHV at night. Other recent legislation enacted in California to regulate OHV use include:

All persons, regardless of age. who operate or ride an ATV on public lands must wear an approved safety helmet (38505 CVC).

No persons under the age of 18, on and after January 1, 1990 shall operate an ATV unless he or she has received the safety course in this state or another state, or is in the direct supervision of an adult who has the appropriate safety certification on his or her possession (38503 CVC).

No person under the age of 14, on or after January 1, 1990 shall operate an ATV unless that person satisfies the requirements of 38503 CVC and in addition is accompanied by and under the direct supervision of a parent or guardian (38504 CVC).

No operator of an ATV on and after January 1, 1990 shall carry a passenger while operating on public lands (38506 CVC).

An OHV shall at all times be equipped with a silencer, or other device, which limits noise emissions to not more than 101 dba if manufactured on or after January 1, 1975, when measured from a distance of 20 inches using test procedures established by the Society of Automotive Engineers under Standard J-1287, as revised January 1988 (CVC 38370).

#### Statement of Purpose

As a result of the changes mentioned previously, the Forest needs to evaluate and update its OHV program. To help with this effort, this field project was prepared as a student project in partial fulfillment of the requirements of the Professional Development for Outdoor Recreation Management Program at Clemson University. The objectives of this field project are to inventory existing OHV use, document opportunities using public involvement and make recommendations that may later be incorporated into a forestwide OHV Plan.

#### Basic Assumptions

The Forest Service recognizes OHV use as a legitimate use of National Forest lands. With proper planning, the Stanislaus National Forest can and will provide OHV opportunities in appropriate locations while protecting forest resources.

Control of open cross country overland use and management of OHV travel is dependent on the availability of a network of designated roads and trails. Forest roads, if properly managed, can add significant OHV opportunities.

Public participation and support is an essential ingredient to this project. Users are essential in laying out road and trail networks and organized groups are interested in the prevention of resource damage.

#### II. LITERATURE REVIEW

Today more than seven million people ride All-Terrain Vehicles. In addition to recreational use, ATVs also serve agriculture, business, commercial industry, and nearly 700 government and law enforcement agencies with on-the-job transportation and other uses. However, most of the literature deals with OHVs in general. Quite often ATVs are lumped together with motorcycles. There is little documentation of the separate effects of ATVs or the needs of ATV users.

#### Administration and Enforcement

An article about protecting and rehabilitating OHV use areas came to the conclusion that most trail damage was caused by improper trail location and construction rather than improper use. This article recommends that Forest Service administration of OHV use include: education/enforcement program; long-range planning; relocation and rehabilitation of sub-standard trails; rehabilitation of areas damaged; construction of barriers and signing to restrict use while providing an alternate route; seasonal closures to provide for early season hiker use, to protect critical wildlife areas and to prevent excessive soil erosion during wet seasons; and closing roads near popular campgrounds to conventional traffic to provide areas for juvenile riders (Dunnell 1980).

A major problem with Forest Service OHV management is its failure to implement the planning decisions it does make. Implementation involves two phases: (1) on-the-ground signing, mapping, and other methods of informing OHV recreationists of local use restrictions; and (2) enforcement of those restrictions (Reames 1980).

The free play or unrestricted use areas where riders are not restricted to roads and trails will probably only exist in a very few places since they are more difficult to manage. It is apparent that OHV use will be more restricted or controlled in the 1980s. More than anything, this means that management will be even more important to ensure user satisfaction and protection of the environment. Adequate provision of facilities is important to minimize any problems (Anderson 1980).

Makel (1988) advocates an OHV management philosophy best illustrated by a triangle: one side representing opportunities; the second side representing restrictions on use; and the third side representing education and law enforcement. If one side of the triangle is missing, OHV management is ineffective.

The Forest Service conducted a review of OHV management in late 1986. The findings, reported in the National ORV Activity Review (USDA 1987) identified several policy areas needing attention: the combination of on-road and off-road use under travel management concepts; unlicensed vehicles and unlicensed drivers on Forest development roads; and, the shift of management emphasis to road and trail opportunities and away from the open area concept. Activities that were found to be deficient were signing, "Host" program, maps, use of engineering support, use of categorical exclusions, use of timber sale activities to create

facilities that can be used for OHV recreation, conflict resolution techniques, and land acquisition for OHV purposes. The Review also reported that:

- 1. Control of indiscriminate cross-country use and the management of OHV travel, is dependent on the availability of a network of open roads and trails. It is critical that these facilities be managed (located, designed, and operated) in a manner that provides a range of recreation opportunities and requires a variety of user skill levels.
- 2. To provide a range of opportunities, without incurring enormous additional capital expenditures for new facilities, will require portions of the Forest development road system to be made available for OHV use. With over 340,000 miles of existing road on the system, ample opportunity exists to meet this need.

The Review found that several principles have evolved from efforts to manage heavily used OHV areas:

- 1. OHV problems are not going away, but they can be successfully managed.
- 2. A key ingredient to managing OHV use is providing a system of loop roads and trails that have varying levels of difficulty and riding times, and are laid out in a manner to protect the resources.
- 3. Staying in tune to OHV user needs is important to good management. Users are essential in laying out trail and road networks to meet the desired experiences.
- 4. Cooperating States with OHV funding programs have, and are playing a major role in addressing National Forest OHV problems.
- 5. Forests with positive OHV programs generally exhibit good customer attitudes, i.e., good "HOST" skills, good user information, and a good understanding of customer needs.
- 6. Closing of open area-wide use and the establishment of designated roads and trails has gone far to eliminate resource problems.
- 7. Organized user groups are an essential element in helping manage OHV use. National user and industry organizations recognize this and have contributed greatly to getting groups organized and involved in volunteer projects.
- 8. The development of "Centers of Excellence" on several Forests that are characterized by interested and involved line officers, rapid adoption of ideas from other regions and forests, and the development of close working relationships with users, industry, state and local governments.

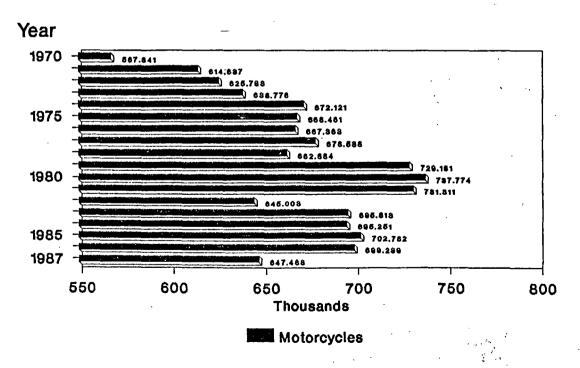
#### Demand

The available literature indicates that OHV use has grown at a tremendous rate in the past but has reached a peak and is now increasing at a very low rate (MIC all; Doyle 1980; CDPR 1980). Doyle's article points out that in the short space of 20 years, Americans participating in snowmobiling has expanded from nearly zero to 14 million. Projections for OHV use in California show little increase through the year 2000 (CDPR 1980).

The motorcycle industry experienced phenomenal growth during the 1960's and 1970's. Since 1960, motorcycle registrations increased almost tenfold, while automobile registrations have only doubled. Today it is estimated that 4.1 million motorcycles and ATVs are used for off-highway recreation in the United States, while 471,300 (11.5%) of these are used in California where the annual economic value of the retail motorcycle marketplace is nearly 1 billion dollars (MIC 1988).

Based on consumer research (MIC 1988), motorcycles and ATVs ridden off-highway traveled an average of 449 miles in 1987. The majority (73%) of off-highway riding occurred in the spring and summer. Riding in rural areas accounted for 65% of the miles ridden off-highway and weekend riding accounted for 68% of off-highway use.

# Motorcycle Registrations



Source: MIC 1988 Statistical Annual

#### Effects of Noise

Noise generation from snowmobiles and motorcycles has received considerable attention in the literature. Central to an understanding of the noise issue is the concept of "vanishing distance" (the distance under which OHV-generated noise becomes inaudible above the always-present background noise). The Motorcycle Industry Council (MIC all) indicates that the vanishing distance within a wooded area varied from 1600 feet for a 76 db source to 12,800 feet for a 90 db source.

The sound of off-road motorcycles is one of the most often mentioned negative factors of off-road motorcycle operation. Some speciality racing motorcycles are loud enough to cause permanent hearing damage to the operator over a long enough exposure. Interference with the sleep or speech communications of bystanders is possible (Harrison 1980).

#### Effects on Private Property

Studies done by the Soil Conservation Service (Bridge 1980) indicate that the following damages may occur either directly or indirectly as a result of OHV activities on private lands.

- Terrace systems may be damaged.
- Fences may be taken down, cut or otherwise made ineffective.
- Gates may be left open or broken.
- Roads and trails may be left so deeply tracked that the cooperator will need to grade or otherwise repair them.
- Young plantations of trees may be damaged.
- Wildlife harassment may occur.
- Ruts and other damage to fields may damage farm equipment.
- Noise impacts.
- Vandalism and thefts.
- Aesthetics of the community may be marred.

#### Effects on Soil and Vegetation

The literature indicates some distinctly different effects on soil from snowmobiles than from other OHVs. For example, soils are affected little by snowmobiles (Aasheim 1980), but are substantially affected by other OHVs (Harrison 1980).

Soil temperatures beneath snow compacted by snowmobiles are significantly colder than those under undisturbed snow. The soil is also typically frozen to greater depths. Erosion can be increased particularly if snowmobiles use slopes with little snow and if the vegetative cover is affected (Aasheim 1980).

Impact on soils and resulting erosion is probably the most significant environmental impact of off-road motorcycle misuse, not amenable to quick solution by modification of the machine (Harrison 1980).

Shrubs and trees that reproduce by vegetative propagation may increase in areas receiving snowmobile use. Intensive snowmobile use can cause a succession of

shrubbery rather than trees if trees are eliminated and competition for sunlight is decreased. Smaller trees with less than three feet of growth above the snow are the most susceptible to damage while snowmobiles have considerably less impact on larger trees (Aasheim 1980).

#### Effects on Wildlife

Research on OHV impacts to wildlife is quite extensive. However, the majority deals with either snowmobiles or the desert environment. Very little research on the western forest environment is available. Bury (1980) states that documentation of OHV impacts on wildlife in western arid lands is scant and research in the California desert indicates OHV activity affects wildlife by:

- (1) Direct damage to the soil and vegetation food and cover.
- (2) Noise harassment of animals territoriality, courtship, breeding.
- (3) Direct mortality.

Snowmobiles create little effect on larger animals and mixed, moderate effects on medium-sized animals; small animals overwintering in subsnow environments were drastically affected. For example, Dorrance (1975) discovered that light snowmobile traffic displaced deer from areas immediately adjacent to the snowmobile trails but that further traffic had little effect on deer movement. Studies of deer responses to administrative use of snowmobiles in the control area (normally closed to snowmobiling by the public) indicated:

- (1) That deer responded to very low intensities of vehicular traffic;
- (2) That the response of deer to vehicular traffic changed with time; and
- (3) That movement of deer increased sharply when snowmobiles were operating...In contrast, deer in the treatment area (where snowmobiles were permitted and tests were conducted) indicated that deer became habituated to snowmobile traffic.

Bury's article "Impacts of Snowmobiles on Wildlife" points out the effects of snowmobiles on small animals using the subnivean layer (space between snow and soil) appears to vary considerably according to the depth and moisture content of the snow. Concern is expressed that lowering the population of small animals due to snowmobile use may in turn affect such predator species as owls, eagles, hawks, foxes, coyotes, and bobcats. The relationship has yet to be investigated.

West (1980) points out that impacts depend on the previous exposure that wildlife had to noise. There is an impact particularly when talking about the wildlife that are not adapted to noise in the area.

Berry (1980) indicates that birds are often most vulnerable to OHV use. Research shows that there were significant differences in abundance and variety of birds between the high and low OHV use plots. The low use plot had greater abundance and diversity. Within each plot, there were significant differences in variety and abundance of birds when vehicles were present and when they were

not. The high use plot had significantly fewer birds and the low use plot had more birds on days when OHV use was heavy in the high use plot. Of the birds studied in depth, most moved away from the area of vehicle use, most flushed more readily, and when disturbed most would fly to dense bushes like mesquite.

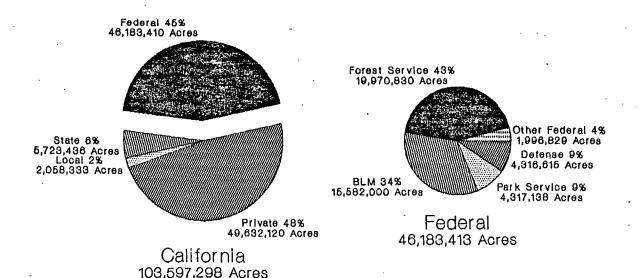
#### Information and Education

In an article on user education, Wells (1980) points out that you can put the users into areas or move them from one area to another by providing something positive for them. Suchovsky (1980) states that conservation attitude development should be an integral part of a total educational experience, not just an isolated course. Sanderson (1980) suggests that if we had responsible, properly educated trail bike users with publicly acceptable vehicles, then many of the management problems that have preoccupied us for the past ten years or so would be reduced or even eliminated.

#### **Opportunities**

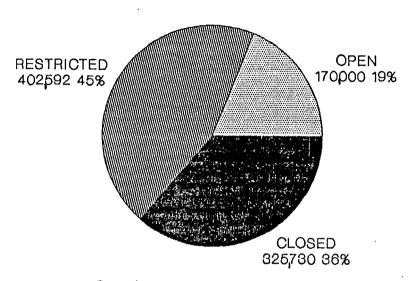
In their Off-Highway Vehicle Study Report (CDPR 1975), the California Department of Parks and Recreation states that, "As the largest single landholder in California, the Federal government already controls vast amounts of land - the most important requisite of OHV recreation" and, "Because of their size, location and history of use, it is clear that the present landholdings of the Forest Service and the Bureau of Land Management make these two agencies the major potential suppliers of large expanses of land for OHV recreation in the State of California." The report also points out that the topography and vegetation of most of the Forest Service lands tend to limit OHV use to trails and unimproved forest roads.

# Land Ownership



The Draft Environmental Impact Statement for the Land and Resource Management Plan (USDA 1986) shows the following area allocations for OHV use on the Stanislaus National Forest:

## **OHV** Use Allocation



Stanislaus National Forest 898,322 Acres

Source: Stanislaus NF Proposed L&RMP

The Forest Service (USDA 1987) conducted a national review of OHV activities and found that uncontrolled cross country or area wide use leads to unacceptable resource damage and is inappropriate on National Forest lands. The report includes a cardinal rule for successful OHV management:

"If there is a demand for OHV opportunities, and an area, trail or road is closed, the problem will simply move to another location. Therefore, the resolution of this type of conflict must start off with a positive action that provides a substitute for the opportunity eliminated."

A survey (being conducted by Associated Resources for the California Department of Parks and Recreation) of the management plans of all National Forests in California shows a wide range of allocations for OHV use. The Eldorado, Los Padres, Mendocino, San Bernardino, Sequoia and Sierra National Forests show all available areas as restricted to designated routes with zero acres allocated to open cross-country travel. The Angeles, Cleveland, Inyo and Lake Tahoe Basin identify small open areas. At the opposite end of the spectrum, the Modoc National Forest shows all available acres as open to cross-country travel.

#### National Forests in California Allocation of Areas for OHV Use (In Acres)

FOREST	TOTAL	AVAILABLE	OPEN	RESTRICTED	CLOSED
Angeles	640,584	375,103	265	374,838	195,053
Cleveland	420,054	33,250	1,560	31,690	386,800
Eldorado	596,724	458 <b>,</b> 561	. 0	458,561	138,163
Inyo	1,956,316	1,323,714	1,100	1,322,614	607,401
Klamath	1,724,931	1,316,931	1,312,431	4,500	408,000
LTBMU	147,733	25 <b>,</b> 819	40	25,779	106,584
Lassen	1,129,600	961 <b>,</b> 335	915,585	45,750	168,250
Los Padres	1,757,383	632,000	0	632,000	1,125,383
Mendocino	884,231	709,631	_ 0	709,631	174,600
Modoc	1,651,630	1,552,532	1,552,532	0	99,098
Plumas	1,168,500	1,129,000	1,048,000	81,000	31,570
San Bernardino	652,026	425,283	0	425,283	226,743
Sequoia	1,119,045	784,000	0	784,000	335,045
Shasta-Trinity	2,100,000	1,542,560	425,600	1,116,960	557,440
Sierra	1,275,152	663,852	0	663,852	611,300
Six Rivers	957,590	222,030	58,200	163,830	677,360
Stanislaus	898,322	<i>5</i> 72 <b>,</b> 592	170,000	402,592	325 <b>,</b> 730
Tahoe	794,374	738,417	142,103	596,314	55,957
Toiyabe	634,798	450,871	203,536	247,335	183,927
TOTALS	20,508,993	13,917,481 (68%)	5,830,952 (28 <b>%</b> )	8,086,529 (39%)	6,517,452 (32%)

#### Public Involvement

Public involvement in decision making and educating the public about OHV management, namely design-capacity guidelines, will enable environmentalists, OHV users, and the general public to better understand the management constraints that accompany OHV planning.

Kickbusch (1980) states that public input is a must in OHV planning. Users and non-users both must understand what is to be accomplished. Total agreement is not necessary, but desirable.

Leonard (1980) suggests that decision making on OHV management include public involvement with task forces composed of land managers, user club managers, and researchers.

#### User Attitudes

Many research reports have described the social characteristics of OHV users. Individual OHV users were found to be at least as varied as the machines. In spite of this, drivers of all OHV types showed a great tendency to form clubs. It appears that many or most managerial techniques need to deal with people and

their actions, rather than with the impact of OHVs on the environment. For example:

Bury and Fillmore (1974) found that most campers regard cyclists as self-centered, anti-social, inconsiderate of the rights and feelings of others, highly-motivated, and unintellectual. In comparison, riders saw themselves as socially accepted, highly motivated, and considerate of the feelings of others; they rated themselves lowest in the intellectual dimension.

McCool and Roggenbuck (1974) best summarized land use conflicts in comparing land managers with OHV users. The former have traditionally been trained in the natural sciences—with concepts of sustained yield, multiple use, and preservation. OHV use is not compatible with their naturalistic value system. The OHV user, on the other hand, does not have a naturalistic value system, and views the OHV as an appropriate means of enjoying the recreational opportunities of public lands.

#### User Conflicts

Conflicts among OHV users and non-users has been identified as one of the most important questions related to OHVs.

Kemsley (1980) states that in the area of land management to minimize conflicts of users, at least one of the answers is the separation of OHV use as much as possible from nonmotorized users.

West (1980) suggests that the safety issue is considered the most important conflict between OHV users and non-users. Sometimes you need to have both groups in the same corridors, sometimes on the same trail. If it is going to be in the same corridor, then at least separate the trails. If you cannot do that, then it is important that both groups of users be aware that the other type of user is going to be there.

Jackson and Wong (1982) indicate that conflicts between cross country skiers and snowmobilers are more complex than merely competition for the land. The skiers prefer low impact activities which reflect their desire for solitude, tranquility and a relatively undisturbed natural environment. Snowmobilers prefer machine oriented activities which provide an outlet for adventurousness and sociability.

The National ORV Activity Review (USDA 1987) states that the nature of conflicts in OHV/travel management are of three major types:

- a. Conflicts between OHV users which usually involves the use of different types of vehicles, i.e. ATVs and snowmobiles, ATVs and motorcycles.
- b. Conflicts between non-motorized users and motorized users, i.e., hikers versus motorcyclist, snowmobilers versus cross country skiers.
- c. Conflicts between motorized users of the National Forests and private land owners, either within or adjacent to the National Forest boundary.

#### **User Preferences**

There seems to be a variety of explicit motivations when people engage in the use of OHVs on public land. Tocher (1980) suggests that the most obvious one is to test their own skills against the terrain and finding that they can make the vehicle perform for them.

Montana's snowmobilers prefer outings in remote, wilderness types of settings (Aasheim 1980).

Off-highway riders really want legal, legitimate places to ride, and would be cooperative in assisting any government agency in developing these facilities. They want destination trails or enduro courses with scenic overlooks, not confinement in a 300-acre park (Anderson 1980).

Kickbusch (1980) makes the following points:

Design of the trails and facilities should accommodate the user whenever possible to accomplish the objective of the trail. Challenge is important to the motorcycle rider, but discretion must be used. Proper location of the trails is a high priority consideration in the location of any trail. Lay out and construct sufficient trails to accommodate the use allowed. Too few trails lead to difficult administration problems.

Bury and Fillmore (1974) indicate that motorcycle riders prefer defined trails, with a variety of turns and terrain, rather than open areas.

#### III. METHODOLOGY

The information contained in this project was collected from statistical reports, literature review, past experiences, interviews and discussions with others, and public participation.

#### Research Methods

Motorcycle Industry Council Statistical Reports were analyzed to estimate trends in off-highway use of motorcycles and ATVs.

A literature review was conducted to analyze the effects of OHVs and to explore different management techniques that have been tried elsewhere. A search for articles relating to OHVs was accomplished through the FS INFO system on the Data General Computer. Copies of all of the applicable articles were obtained and reviewed.

Past experiences on the Stanislaus National Forest were used to relate the information gathered to what is actually happening on the ground.

Interviews and discussions were conducted with forest users and representatives from the Motorcycle Industry Council, Associated Resources, California Department of Parks and Recreation, American Motorcycle Association and the Forest Service.

Public involvement, an essential ingredient to this project, was accomplished through the use of a Forest Newsletter and a Survey printed on Clemson stationary (see appendix for copies of both). Both were mailed separately to a total of 250 names on the Forest's OHV mailing list (25 of each were returned to sender by the Post Office). This list was compiled over the past 5 years from those expressing an interest in OHV use on the Stanislaus. It includes both OHV users and non-users in near equal numbers.

First, a review of past public input regarding OHVs, as well as several small informal workshops were used to identify several key issues. In order to develop a successful OHV program the Forest Newsletter asked for comments on and/or help to:

- 1. Inventory existing OHV use and identify opportunities for proposed OHV routes and staging areas.
- 2. Designate routes of varying length, difficulty and riding times, laid out in a manner to protect forest resources.
- 3. Monitor the effects of OHV use to conserve soil, protect water quality and minimize the effects on wildlife.
- 4. Locate designated routes to avoid private lands if at all possible.
- 5. Identify the need for seasonal closures to prevent resource damage and to reduce impacts on key wildlife areas.
- 6. Avoid conflicts with other types of use.
- 7. Consider OHV use by unlicensed operators on certain road segments that are also open to general traffic.
- 8. Provide an appropriate level of education and enforcement.

A total of 16 letters were received in response to the newsletter. The comments received are summarized below.

- OHVs cause considerable soil erosion.
- OHVs should be reduced or eliminated from the National Forest.
- OHVs generate noise pollution.
- OHVs conflict with other uses of the National Forest.
- OHVs create fire hazards.
- OHVs adversely affect private property and residential areas.
- OHVs belong on roads that already exist.
- Eliminate open cross country use.
- Prohibit non-street legal and unlicensed operators from using forest roads.
- No OHVs.
- More Wilderness.
- If OHVs are allowed, then no new roads for that purpose.
- OHVs destroy forest resources well beyond their approved areas.
- Limit routes to existing logging roads.
- Seasonal closures should include snowmobiles.
- OHV use must be monitored.
- Avoid key wildlife areas.
- Watersheds should be protected.
- Enforce regulations and require permits.
- OHV routes should be kept away from Wilderness boundaries.

The newsletter also included a coupon which will be used to update the OHV mailing list. A total of 66 coupons have been returned by those wishing to receive future OHV information.

The relatively low response to the newsletter may have been the result of several factors. First, the importance of the newsletter may have been somewhat diluted by the concurrent mailing of the survey. Second, past experiences on the Stanislaus indicate that a low response to such initial scoping can be expected, while the level of public response is much greater when a draft plan is published.

The purpose of the Survey was to generate more information about public attitudes towards OHVs and to obtain public input to help formulate a policy for managing OHV use on the Stanislaus National Forest. A questionnaire approach was chosen in order to solicit opinions from interested forest users.

Questions were based on the 8 key issues identified in the newsletter. A questionnaire pre-test was conducted with several forest employees. As a result of this pre-test, appropriate changes and modifications were made in the questionnaire.

A total of 112 (86 users and 26 non-users) surveys were filled out and returned. The results of the survey are shown below with comparisons between users and non-users where applicable. Totals, averages and additional comments are also shown for questions that required an answer other than yes or no.

	(12) Local Foothills (14) Central Valley (71) SF Bay Area (13)	Other	
	Others listed included the East Sierra, Montana, Denver, Idaho, Los Mendocino and the Central Coast.	Angel	es,
2.	Do you, or does anyone in your family, own or operate a vehicle that can be used for off-highway travel?	YES 86	NO 26
3.	What types and how many of the following Off-Highway Vehicles (OHV's own or operate?	-	you
	4WD Pickup/Wagon       43       Non-Street Leg         4WD Short Wheelbase       30       2         All Terrain Vehicle (ATV)       10         Motorcycle       12       86         Snowmobile       10         Dunebuggy       1	al	
4.	What percentage of your total overland OHV use (if any) is:		
	On Roads? 39.4 On Trails? 46.5 Cross Country? 14.1		
5.	What percentage of your total oversnow OHV use (if any) is:		
	On Roads? 66.0 On Trails? 32.7 Cross Country? 1.3		
6.	What is your average off-highway use in each of the following catego	ries?	
	a. Hours per day:  b. Miles per day on roads:  c. Miles per day on trails:  d. Miles per day cross country:  17.9		
7.	Do all of your non-street legal OHV's have a valid State of California Green Sticker?	YES 63	NO 2
3.	Do all operators of your OHV's have a valid State drivers license?	YES 47	NO 39
	a. Which type of OHV is used by unlicensed operators? motorcycles	and A	TVs
	b. What percent of total OHV use is by unlicensed operators?	2	0%
	c. Do unlicensed operators use forest roads open to general traffic?	YES 1	NO 38
	d. Are the unlicensed operators familiar with the rules of the road?	YES 39	NO O
	e. Do the unlicensed operators have any type of safety training?	YES 39	NO O

1. Where is your primary residence located?

9. Do you believe that any of the different types of OHV's may not YES NO be compatible, in the same area, with each other? 72 5 User: motorcycles and 4WD; ATVs and motorcycles due to trail width; 4WD and ATVs; snowmobiles and wheeled vehicles due to ruts; 4WD, motorcycles and ATVs do not mingle safely; 4WD with non-street legal or unlicensed operators; ATVs on narrow trails 10. What sources of information have you used regarding OHV opportunities on the Stanislaus National Forest? (16) FS Field Personnel (22) Newspapers (29) Other OHV Users (68) FS Office Personnel (4) Magazines (28) OHV Club Information (39) FS Maps/Brochures 11. What types of OHV information do you think the Stanislaus should provide? User: rules and emergency procedures; maps and closures; to prevent damage; key contacts; clear signing; user guide 12. Do you operate an OHV on the Stanislaus National Forest? YES NO 79 7 a. How often, each year, in the following categories: Overland? Spring 2.4 Summer 3.0 Fall 2.2 Winter 2.3 Oversnow? 2.1 13. Which State Highway do you most often use to access the Stanislaus? (68) 4(9) 108 (57) 120 14. What specific areas, roads or trails on the Stanislaus do you use? User: Silver Mine Creek Road and others to trailheads; Slick Rock Trail; Cabbage Patch; Mattley; Grouse Valley; Sourgrass; Eagle Meadow; Herring Creek; Highland Lakes; Bear Valley; Cherry Valley; Buck Meadows; Hulls Meadow; trails off 1NO4; Niagara 4WD; 3N20; 7N57; 1N09; 1S26; 1S03; 1N03; 1N01 and spurs; Blue Lakes Road; Jawbone; Beaver Creek; Willseyville and Arnold; Deer Valley; Ramsey; Utica Reservoir area 15. Do you have a favorite campsite or gathering area that you visit YES NO while operating your OHV on the Stanislaus? 58 17 User: Boards Crossing; 7N69/7N09 junction; Sourgrass; Cabbage Patch; Niagara Creek; Eagle Meadow; Camp Clavey; Fraser Flat; Hull Creek; Sand Flat; Lake Alpine; Utica Reservoir; Beaver Creek; Ramsey; Mattley Meadow; Calaveras Big Trees 16. Have you ever had contact with Forest Service (FS) personnel while NO YES you were operating your OHV on the Stanislaus National Forest? 66 8

- 17. Rank, in order of importance, the main reasons for operating your OHV on the Stanislaus National Forest?
  - (1) Motorized Recreation (
- (4) Viewing Scenery
- (5) Hunting or Fishing

- (7) Competitive Events
- (2) Group Outings
- (3) Enjoying Nature

- (6) Woodcutting
- ( ) Others (see below)

The rankings shown above were determined from a point total which was a result of 7 points for each #1 ranking, 6 points for a #2 ranking, and so on down to 1 point for a #7 ranking. The results are as follows:

				I	RANK			
TOTAL	ITEM	1	2	3	4	5	6	7
395	Motorized Recreation	55	1		1			
358	Group Outings		55	4	2			
347	Enjoying Nature	4	3	55	3	4	1	
275	Viewing Scenery	1	7	4	38	18		
135	Hunting/Fishing	3	3	2	21		1	
63	Woodcutting		2	2		1	18	2
20	Competitive Events		1	1		1	3	
12	Access to Hiking	1		1				
11	Access to Home	1			1			
7	Passing Through	1						
1	Getting Away							1

18. Is overland OHV use legitimate on certain National Forest lands? YES NO User 76 7

Non-User 11 13

The users answering no to this question were all owners of street legal 4WD vehicles. They indicated that all use should be street legal and on roads.

19. Do you support the Forest Service policy allowing overland OHV YES NO travel only on designated routes? User 79 6 Non-User 17 8

The non-users answering no to this question indicated that there should be no OHV routes at all.

20. Do you believe that open cross country overland OHV use should be allowed in all areas of the National Forest (excluding Wilderness)?

User 6 79 Non-User 0 26

21. Do you believe that open cross country overland OHV use should be YES NO allowed in certain areas of the National Forest? User 66 17

Non-User 4 19

User: no resource impacts can occur; does not conflict with wildlife;

small confined areas; emergencies; in an area deemed expendable;

gravel pits

Non-User: OHV impacted areas that can not be used for anything else;

emergencies

- 22. Is oversnow OHV use legitimate on certain National Forest lands? YES NO 79 User 3 14 Non-User 9
- 23. Do you believe that open cross country oversnow OHV use should be allowed in all areas of the National Forest (excluding Wilderness)?

User 76

Non-User 1 22

24. Do you believe that open cross country oversnow OHV use should be YES NO allowed in certain areas of the National Forest?

> 9 User 72

Non-User 9

User: with sufficient snow cover; does not conflict with wildlife; emergencies; does not conflict with other uses; with least impacts Non-User: does not conflict with wildlife; does not conflict with cross

country skiing; frozen lakes; with sufficient snow cover

25. Do you believe that open cross country oversnow OHV use should be NO prohibited in certain areas of the National Forest? 79 3 User Non-User 26 O

User: possible ecological damage; high use cross country ski areas; in all non-motorized areas; prohibit all off-road use; where other users seek solitude; where it will cause impacts; the Pinecrest area is more that enough for cross country skiers; tree plantations

Non-User: allow only for search and rescue; Wilderness study areas; plantations with trees less than 4' tall; high alpine areas; any wildlife conflict; near private property

26. Do you believe that oversnow OHV use should be allowed only on YES NO designated routes? User 20 66 Non-User 20 2

The non-users answering no to this question indicated that there should be no OHV routes at all.

27. Which of the following different types of use may not be compatible, in the same area, with overland OHV use on designated routes?

(User/Non-User) (13/22) Camping (7/13) Mountain Bikes (63/8) Timber Harvest (19/24) Hiking (65/20) Private Property (78/19) Residential Areas (42/23) Wilderness (23/21) Deer Winter Range (16/19) Deer Summer Range (64/14) Hunting (12/18) Fishing (57/20) Horseback Riding (30/9) Automobile Traffic (22/15) Resorts (13/16) Scenic Viewing (19/18) Roadless Areas

Others mentioned once each include (Users) fawning areas, botanical areas, endangered species, (Non-Users) peace and quiet, wildlife viewing and sensitive species.

28. Which of the following different types of use may not be compatible, in the same area, with cross country oversnow OHV use?

(User/Non-User)		
(16/21) Camping	(16/12) Mountain Bikes	(44/ 9) Timber Harvest
(17/22) Hiking	(76/19) Private Property	(78/18) Residential Areas
(23/19) Wilderness	(38/20) Downhill Skiing	(21/20) Cross Country Skiing
(47/14) Hunting	( 9/15) Fishing	(55/17) Horseback Riding
(30/18) Snowplay	(30/14) Resorts	(8/16) Scenic Viewing
(12/17) Roadless Areas	3	

Others mentioned once each include (Users) winter range, botanical areas, endangered species, (Non-Users) other life forms, winter range, snowshoeing, peace and quiet, wildlife viewing and sensitive species.

There were several unexpected results to the findings of questions 27 and 28:

- a. Many OHV users believe that timber harvest is not compatible with their recreation activity. Based on the response to other questions it appears likely that users prefer a natural appearing forest.
- b. Users rank conflicts with private property and residential areas very high while non-users rank conflicts with hiking, camping and Wilderness much higher.
- c. Non-users rank camping and hiking conflicts with oversnow OHV use very high even though these activities do not normally occur at the same time of year.
- 29. Can unlicensed operators use certain forest roads open to general YES NO traffic without creating safety hazards?

  User 42 41
  Non-User 1 22

User: when clearly posted with very low speed limit; with proper training; low use dirt roads; under supervision; to get to riding

area

Non-User: only on separate trails; permit required

#### 30. Where should designated routes be located?

User: away from scenic, residential and Wilderness areas; away from critical wildlife areas; existing logging roads and skid trails; through areas of scenic and historical interest with varied terrain; in areas closed to street legal vehicles; we pay people who work in the forests to know

Non-User: only on existing roads; outside the National Forest; fuelbreaks; closed roads; away from water sources

#### 31. Where should OHV staging areas be located?

User: off main roads at the beginning of routes; away from residential or campground use; 7N69/7N09 junction; Corral Hollow; northwest of Arnold; close to level 3 or better roads

Non-User: Los Angeles; where there is sufficient space and facilities at entrance to OHV areas

32. Would you support seasonal closures of designated routes and/or areas to prevent resource damage and to reduce impacts on wildlife?

User Non-User 23

User: to alleviate real problems not perceived conflicts; to protect

wildlife, soil and vegetation

Non-User: whenever needed to prevent damage or protect wildlife; keep all

routes closed year round; wildlife birthing; timber harvest;

hunting

33. Are you a member of an OHV club, group or organization? YES NO

User 66 19

26 Non-User

34. Are you a member of an environmental club, group or organization? YES NO

User 16 70

Non-User 13 13

35. Are you an employee of the Forest Service or any other land YES NO management agency? 3 83 User

> Non-User 3 23

#### 36. Additional comments:

#### User:

so little can be done to enforce regulations; impacts are based more on individual riders and their judgement; many OHV groups are also environmental and conservation oriented; responsible OHVers are most angry at OHV abuse; allow licensed drivers only; many users do not stay on routes; violators should be fined; rangers should be patrolling and not spending so much time marking trees for harvest; OHVs do not destroy the land, logging does; surfaced roads are not a good selection for OHV use; no damage to the environment should be permitted; Forest Service can not control present abuses; enforce noise restrictions; OHVs should be welcome to the extent that the activity does not prevent others from enjoying the forest; wheeled oversnow OHVs carve up bare hillsides; move the Highway 108 winter closure gate 1 mile to the east; OHVs are not the only use that impacts wildlife; deer and squirrel don't appear distressed by our presence; allow only less damaging trail tire tread; all forest users should pay a fee; we can do it together, responsibly

#### Non-User:

prohibit all non-street legal OHVs; everything in an OHVs path is destroyed; do not take orders from the OHV industry; eliminate all uses that pollute the natural environment; motorized vehicles offer nothing but damage, degradation and consumption; abandon the ridiculous idea of the trans-forest OHV route; Forest Service motto should be "Land of Many Abuses"; motor vehicles disrupt the natural beauty and silence of our forests; snowmobiles conflict with skiers; Wilderness must win; hikers should have the right of way; oversnow use should be mainly on unplowed roads; need enforcement and maintenance; the OHV community has money way out of proportion to their numbers due to green sticker dollars

#### Based on the results of this survey, the typical OHV user:

- Lives in the San Francisco Bay Area.
- Has either a street legal four wheel drive or a non-street legal motorcycle.
- Rides mainly on roads and trails.
- Has green stickers on all non-street legal OHVs.
- Has a driver's license.
- Believes that different types of OHVs are not compatible in the same area.
- Receives OHV information from the Forest Service and other users.
- Visits the National Forest for (1) motorized recreation, (2) group outings, (3) enjoying nature and (4) viewing scenery.
- Visits the Stanislaus 12 times per year.
- Operates an OHV for 5 hours and travels 64 miles per day.
- Believes OHV use is legitimate on certain National Forest lands.
- Supports the "designated routes only" concept for overland OHV use.
- Believes cross country OHV use should be allowed only in certain areas.
- Believes OHV use should be prohibited in certain areas.
- Believes that OHV use may not be compatible with residential areas, private property and horseback riding.
- Supports the need for seasonal closures to protect resource values.
- Is a member of an OHV club or organization

#### Based on the results of this survey, the typical non-user:

- May or may not believe that OHV use is legitimate on certain National Forest lands.
- Believes that all OHV use should be "designated routes only".
- Believes OHV use should be prohibited in certain areas.
- Believes that overland OHV use may not be compatible with hiking, Wilderness and camping.
- Believes that oversnow OHV use may not be compatible with cross country skiing, downhill skiing and Wilderness.
- Supports the need for seasonal closures to protect resource values.

#### Development of Alternatives

The Stanislaus National Forest is in the process of revising its Draft Forest Land and Resource Management Plan. The Forest Plan will evaluate and update the OHV Plan to include the policy and use changes that have occurred over the past decade. The National ORV Activity Review (USDA 1987) lists general guidelines, currently in effect, which will influence this process.

- 1. Land Management Plans must consider opportunities to provide for OHV use. Forest Plans should identify the general criteria that will apply to OHV management and the broad allocations of the land base as open, closed or restricted. Avoid site specific identification of operable areas or travel routes in the general Land Management Planning
- 2. Site specific identification of operable areas and OHV routes should occur in the Forest OHV or Travel Management Plan which would tier to the Forest Plan. Routes or areas identified should be consistent with the criteria identified in the Forest Plan. This plan should also address the various types of OHV opportunities that could be provided as a result of:
  - a. Use by different vehicle types such as 4WD, ATVs or motorcycles.
  - b. Different reasons for OHV use including access to destination sites, riding on loop trail systems, long distance touring or trails riding.
  - c. Demands for diversity of opportunities based on difficulty levels of trails or access to different vegetation types.
  - d. Opportunities for organized events.
  - e. Statewide Motorized Trail System (SMTS) designation of certain eligible segments (see Chapter IV).

Each alternative in the Forest Plan should have OHV allocations that correspond to the basic land allocation and theme of the alternative. The amenity type alternatives should include high levels of closed and restricted due to the levels of Wilderness and non-motorized areas. Conversely, the commodity type alternatives should include lower levels of closed or restricted and varying levels of open.

A range of possible OHV use allocation alternatives is shown below.

ALTERNATIVE 1 (Open): This alternative would remove current restrictions. Only existing Wilderness would be closed to OHV travel. All other National Forest land would be open to cross-country travel. There would be no need to designate routes but a high level of new development could occur, including a forestwide SMTS without gaps.

ALTERNATIVE 2 (No Action): This alternative would continue present management with the current OHV Plan revised to include legislated Wild and Scenic Rivers and Further Planning Areas. Some areas outside of Wilderness would be closed to OHV travel. A low level of designated routes will be included along with very limited new development. No road or trail segments will be nominated for inclusion with the SMTS.

ALTERNATIVE 3 (Some Open): This alternative would have more restrictions than the present management. Only small open areas, such as gravel pits, will be identified. Non-motorized areas outside of Wilderness would be closed to OHVs. A maximum level of designated routes will be included along with a high level of new development. New construction would develop a forestwide SMTS without gaps.

ALTERNATIVE 4 (Restricted): This alternative would not show any open areas at all. The entire Forest would be closed or restricted to designated routes. It also includes a higher level of non-motorized areas which are closed to OHV travel. Special seasonal closures and use restrictions would be applied forestwide. A moderate level of designated routes will be included along with some new development. The SMTS will consist of a series of loops that will not be connected throughout the Forest.

ALTERNATIVE 5 (Closed): This alternative would show the entire Forest as closed to OHV travel. Street legal vehicles could still travel on any forest road that is open to the public.

Approximate acres for each OHV use allocation, by alternative, are shown below.

			ALTERNATIV	E	
ALLOCATION	1	2	3	4	5
Open to Cross-Country Travel	686,522	170,000	1,000	0	0
Restricted	0	402,592	571,592	472,592	0
Closed to OHV Travel	211,800	325,730	325,730	425,730	898,322

#### IV. DISCUSSION

Past experiences on the Stanislaus National Forest have indicated that the driving of motorized vehicles on unroaded land results in more damage to public lands than any other popular recreation activity. A single cyclist on a mini bike or dirt bike can rip a moist grassy hillside apart in a half hour of "recreation". The damage from off-road use of vehicles occurs from a wide variety of sources. Woodcutters often leave the roadway to make loading easier; hunters often drive off roads to get to "ideal" hunting camps or to get closer to their game; loggers and contractors also leave roads at times and in places where it isn't really necessary; and of course OHV recreationists often leave the roads or trails to get to a good fishing spot, to get to another road or trail, or simply because their vehicle is capable of negotiating the terrain.

The use of OHVs during the winter creates a more complicated management situation. Snowmobile use, on the Calaveras and Summit Ranger Districts, occurs on both designated roads and trails and cross country oversnow. There have been few negative impacts from cross country snowmobile use. Concern over possible snowmobile damage to young trees particularly in plantations has been expressed in the past but this has not been a problem recently. Wheeled vehicles, on the other hand, have caused considerable damage. 4WD vehicles and ATVs drive over snow covered meadows, break through the snow crust and wind up spinning wheels down into wet soil resulting in significant resource damage.

The current travel management situation on the Stanislaus National Forest leaves many unsurfaced roads open to vehicle use in the winter when snow conditions permit. This frequently leads to significant road damage particularly during the spring when early season wood cutters and motorized recreationists begin exploring the forest again. Often, motorists begin following a nearly dry road and as they gain elevation or the road rounds a bend to a shady aspect, they encounter wet road conditions. The motorists know they are causing resource damage but they have a destination in mind and push ahead. Often the result is deep ruts which may lead to rill erosion and loss of road cushion material.

Many of the problems that have been associated with OHV use on the Stanislaus were due to lack of funding and the low visibility of the OHV program within the Forest Service. However, the situation has been improving in recent years with funding provided by the State of California. The OHV program now enjoys a higher visibility on the Forest while opportunities, restrictions and enforcement have all increased. Current management of OHV use as open unless specified closed has also created problems. Negative closure signs are constantly vandalized and removed. Users then assume an area is open since there are no closure signs. Managing OHV use as closed unless specified open would take a positive approach towards alleviating these problems.

The Stanislaus National Forest has historically received a high level of OHV use and has strong support from many of the OHV user groups. In recent meetings to discuss OHV planning, there were representatives from numerous OHV groups as well as representatives from local conservation groups, state and private agencies. The Forest supports the integration of all resources wherever possible and continues to work with all interested users in order to see that this is achieved.

District patrols have frequent contact with individual and group users. They take these opportunities to talk with the users about the rules and regulations of the OHV program and to ask people how they like what is being provided. They also ask people for input as to what they would like the program to be.

The Forest is in the process of developing a forestwide OHV Plan. Based on the best available information and working with the various user groups, the Plan will identify the types of use desired, where these uses will occur and ways in which to mitigate potential resource conflicts.

The Mi-Wok Ranger District has recently enlisted the support of a local motorcycle club to help identify and map those trails that are currently being used by their members. There are still, however, many miles of uninventoried trails/routes that are being used by other OHV enthusiasts. All of these trails need to be identified, mapped, and surveyed for condition and potential resource conflicts. The following is an inventory of the known OHV trails that are presently used on the Stanislaus National Forest:

	MOTORCYCLE	ATV	4 <u>WD</u>	SNOWMOBILE
OHV MILES	138	38	138	58

The Calaveras Ranger District has been expanding its identified network of OHV routes over the past two years. Use of 4WD, snowmobiles, motorcycles and ATVs is growing as well. They have an extensive and active volunteer/adopt-a-trail program with six different OHV routes currently adopted by different clubs:

- 1. All American 4 Wheelers Mattley Loop OHV Trail and Proposed Horse Gulch OHV Staging Area (being considered in the Corral Hollow Plan OR-2-ST-06).
- Contra Costa Jeepers Ramsey Flat OHV Trail.
- 3. Joaquin Jeepers Slick Rock Road.
- 4. Bounty Runners Pine Needle Flat Trail.
- South County Trail Riders Deer Valley Trail (out of Hermit Valley).
- 6. Mud, Crud and Beer 4WD Club Corral Hollow and Bear Trap Cabin.

The District also has a backlog of other 4WD and motorcycle clubs waiting to adopt trails and hopes to accommodate them in the coming season. They are planning to begin working with local motorcycle riders in the identification of a single track (24" wide) trail network in the western part of the Calaveras Ranger District. Also, the District has begun a snowmobile trail grooming program this winter and has the support of the Cal/Nevada Snowmobile Association (CNSA). CNSA was very helpful and supportive in providing information and contacts as the Calaveras District attempted to coordinate routes and contracting with local and state agencies.

Approximately 70,000 acres of the Summit Ranger District are suitable for oversnow use. Highway 108 and Clark Fork Road have been signed in the past to help guide the public. Snowmobiles are allowed, so long as there is a 6 inch packed snow depth. No oversnow vehicles are allowed in the Pinecrest-Dodge Ridge area which encompasses approximately 3,000 acres. This leaves thousands of acres open for oversnow use, but not all of the areas are utilized.

The Mi-Wok District has recently applied for State grant funds to develop and implement a monitoring plan that would assess the impacts of OHV use on wildlife, watershed and soil resources. Some specific aspects of this plan may include soil surface erosion monitoring, threatened, endangered or sensitive species monitoring, water quality monitoring, and cultural resource monitoring. Although the Forest has some of this inventory work completed already, the monitoring plan will serve to fill in the missing data gaps. Specific locations, intensity of sampling, and times of sampling will be identified in the monitoring plan. Evaluation of the site-specific monitoring program will be documented in an evaluation report. The significance of the results will be analyzed and evaluated by an interdisciplinary team. These evaluations, when complete, will indicate if the desired goals, objectives, and standards for those resources are being achieved. If any significant negative impacts are identified, the plan will assist in developing measures to lessen these impacts.

It appears that open cross country snowmobile use can occur over a minimum of 12" of packed snow without causing resource damage to the land. Impacts on wildlife will need to be monitored. The Forest should continue to increase its groomed snowmobile trails using several sources of funding from green sticker to allocated or contributed funds. Groomed trails encourage motorized recreation in the places where management feels this type of recreation is most appropriate and experience tells us that the majority of use will be confined to the groomed trail system. Wheeled vehicles should not be allowed to operate off surfaced roads during the winter season when both unsurfaced roads and meadows are very vulnerable to damage.

Many other forests have and enforce a seasonal closure to protect unsurfaced road systems. This solution is probably the most appropriate action for the Stanislaus to take. Concerns involve creating a seasonal closure which is flexible and easy to maintain and enforce. This might involve maintaining barricades on entrances to all our unsurfaced roads.

#### OHV Grant Projects

Some non-users perceive that the Forest Service is selling out to the OHV community by accepting grants for OHV related activities. Therefore, it is important to this discussion to highlight the current projects underway on the Stanislaus. All of the projects serve a use that is already existing and all have a goal to enhance the opportunity while directing use to where damage can be controlled or prevented.

Project #		Grant Amt	Amt Spent	%Complete	Estimated Completion Date
OR-2-ST-01 OR-2-ST-02 OR-2-ST-04 OR-2-ST-05 OR-2-ST-06 OR-2-ST-07 OR-2-ST-08 OR-2-ST-09	Niagara Ridge 4WD Date Flat Staging SMTS Planning O&M 88/89 Corral Hollow Plan 108 Snowmobile Plan O&M 89/90 Corral Hollow Dev	\$ 98,000 \$172,000	\$ 62,000 \$ 66,000 \$ 75,000 \$ 500 \$ 200 \$	96 60 50 15 15	June 1989 June 1990 June 1989 June 1989 June 1989 Oct 1990 Oct 1990
OR-2-ST-10	108 Snowmobile Dev	\$182,000	<b>\$</b> ′		Oct 1990

#### NIAGARA RIDGE TRAIL (OR-2-ST-01)

This project is about 96% complete. The staging area is completed and the ridge trail has been built. Both are in need of yearly maintenance, especially the trail. The Summit Ranger District hopes to have the group that has adopted the trail in the past become more active this season. The State has given the District permission to use the remaining funds from this project to construct a tie through trail between the staging area and Forest Service Road 5NO4 to the west of the staging area. The trail location has been decided on after visits by specialists and several flaggings of possible locations. Next step in the process is to amend the EA and after receiving state approval, begin the trail construction.

#### DATE FLAT STAGING AREA (OR-2-ST-02)

Approved by the State Off-Highway Motor Vehicle Recreation (OHMVR) Commission in 1983, a project agreement has been held up pending a final decision on the EA. The State is currently reviewing the analysis and will issue a project agreement in the near future. Tentatively, the Forest plans to put the project out to bid in late 1989 or early 1990.

#### SMTS PLANNING (OR-2-ST-04)

The original project agreement included \$50,000 for 0&M which has been spent, leaving \$65,000 for Statewide Motorized Trail System (SMTS) planning. The project agreement called for a North/South OHV Plan and the Forest spent considerable time preparing an EA for a cross-forest route with staging areas and side routes. The EA was to be completed by early 1989, however, the Forest was not able to accomplish the original time schedule due to the Stanislaus Complex Fire and subsequent recovery and timber salvage efforts. It appears, from the analysis and scoping done to date, that the SMTS can consist of a series of one day loop trail opportunities or a North-South route through the forest with side trails. There is concern about the quality of experience that can be offered by this concept due to the large mileage of existing road involved. However, the Forest is still investigating opportunities. The current goal is to complete SMTS planning as part of a forestwide OHV Plan. The State approved a request to amend the project agreement to cover this effort.

#### STANISLAUS 0&M 88/89 (OR-2-ST-05)

This grant fund was originally intended to fund development of the Stanislaus portion of the SMTS. Development depended upon the outcome of the EA in the previous planning project. The state had funded this project for \$902,000. Since the completion of the planning was not expected for several years, it was decided to withdraw these funds and utilize them for other more urgent O&M needs. The \$902,000 project agreement was returned to the State and the agreement was amended to provide this \$150,000 O&M grant.

#### CORRAL HOLLOW PLANNING (OR-2-ST-06)

A proposed staging area off of Highway 4 to serve potential loop OHV trails on the Calaveras District, requested by the Forest in 1986 for State funding. The OHMVR Commission approved the development for \$43,000. The District requested and received a project agreement to do an EA. Alternative locations of Corral Hollow and Hay Gulch will be evaluated. Approved funding is \$5,000 and the EA was to be completed by 6/30/88. Due to personnel involvement in the Stanislaus Comlpex Fire and the recovery efforts, the District was not able to meet the deadline and received an extension to complete the EA by 6/30/89.

#### HIGHWAY 108 SNOWMOBILE PLANNING (OR-2-ST-07)

This is the planning phase for project number OR-2-ST-10 that the State has approved. EA completion date is to be June 30, 1989.

#### **STANISLAUS 0&M 89/90** (OR-2-ST-08)

This is a forestwide 0&M grant fund of \$98,000 which extends from 6/30/89 through 6/30/90.

#### CORRAL HOLLOW DEVELOPMENT (OR-2-ST-09)

Pending the recommendations of the Corral Hollow/Hay Gulch EA (OR-2-ST-06), the development has been approved by the State for funding of \$172,000.

#### HIGHWAY 108 SNOWMOBILE DEVELOPMENT (OR-2-ST-10)

Pending the recommendations of the Highway 108 Snowmobile EA (OR-2-ST-07), the development has been approved by the State for funding of \$182,000.

#### Combined Use

California has passed a "Combined Use" law pertaining to OHV use on public roads. Combined use permits OHVs and public vehicles to operate together on the same roads if all of the following conditions are met:

- 1. The road segment is designated by the local authority and approved for combined use by the Highway Patrol.
- 2. The segment of road designated does not exceed 3 miles.
- 3. OHV use is during daylight hours.
- 4. The OHV has an operational stoplight.
- 5. The operator of the OHV has a valid drivers license.
- 6. The operator has insurance for the vehicle.

The Forest Service has authority to designate combined use roads using criteria different than State combined use authority. The State of California has combined use authority which is in Section 38026 of the Vehicle Code. This authority does not meet the needs for Forest Roads since one of its provisions requires a drivers license. Many of the OHV users are under 15 1/2 years of age and do not qualify for a State motorcycle license. As such they could be eliminated from using many of the low volume roads which constitute connecting links in the OHV trail system.

In October 1986, a questionaire regarding OHV use and regulations was sent to each Forest in California. One question asked whether the Forests had situations where combined use on level 3, 4, or 5 maintenance level roads was needed. All but one Forest indicated situations where combined use authority was needed. Another question asked if there was a need to be able to permit combined use for unlicensed drivers. 75% responded affirmatively. Based on this response, and on the fact that unlicensed operators are driving on maintenance level 3, 4, and 5 roads, the Forest Service is developing a combined use order.

The Forest Service Combined Use Order will permit unlicensed drivers to operate OHVs on Forest development roads under certain conditions. This is a significant difference from the States's authority. Forest Service combined use authority is derived from 36 CFR 212.7 which permits the Forest Service to establish rules, or road orders in 36 CFR 261 which may conflict with State traffic laws.

Forest Supervisors may designate roads for combined use on a case-by-case basis. A study should be made of the roads or segment of roads to review the potential for accidents and for ways to improve the safety of the OHV use in an area. Combined use would be permitted when all of the following conditions are met:

- a. Use is during daylight hours.
- b. The off-highway vehicle has a valid "Green Sticker" registration as required by California Vehicle Code Section 38020 or a valid license plate as required by California Vehicle Code Section 4000a displayed on the vehicle.
- c. Unlicensed drivers are under the direct supervision of a responsible adult at least 18 years of age operating a similar vehicle who has in possession a valid operator's permit as defined in California Vehicle Code Section 12500 OR the unlicensed driver has in possession a certificate of completion of a State of California or Forest Service approved safety course in off-highway vehicle operation.
- d. The vehicle meets the requirements in 36 CFR 261.13 for use of vehicles off roads. (This section covers: brakes, reckless driving, spark arrestors, noise standards, driving under the influence, etc.)
- e. The road or segment of road is signed permitting use by OHVs.

#### Summary of Laws and Regulations for OHV Use National Forests In California

36 CFR 212.7

Makes State traffic laws applicable to Forest Service roads except when the State laws are in conflict with 36 CFR 261.

CVC Div 3, 4000(a)

Exempts OHVs from registration requirements provided they are identified with a Green Sticker under CVC 38010.

CVC Div 6, 12501(c)

Eliminates drivers license requirements for operation of vehicles when operated off of highways. (This includes OHV trails, open areas and Level 2 roads)

CVC Div 16.5, 38001

Establishes laws for operation of OHVs on other than a highway. Highways do not include fire trails, logging roads or other roughly graded roads.

FSH 7709.58

Describes road maintenance levels. The surface on Level 1 & 2 roads are maintained for high clearance vehicles.

Maintenance is performed to minimize erosion. Travel in passenger cars is not a consideration. This means the road is roughly graded. If the road surface appears smooth consider an entrance strategy, such as waterbars, to make it obvious to the user that the road is not maintained for passenger cars. Therefore, CVC Div 16.5 applies to all OHV use on National Forest trails, open areas and level 2 roads.

CVC Div 16.5, 38012(b)

Generally defines an Off-Highway Vehicle as:

- 1. Any motorcycle or motor-driven cycle.
- 2. Any snowmobile or other vehicle designed for travel over snow or ice.
- 3. Any motor vehicle commonly referred to as a sand buggy, dune buggy, or all-terrain vehicle.
- 4. Any motor vehicle commonly referred to as a jeep.

cvc 38006

Exempts any vehicle registered under CVC Sec 4000 when operated off a highway.

CVC Div 16.5 38010

Requires an identification sticker (Green Sticker) on all off-highway vehicles except:

- 1. Vehicles registered under CVC Sec 4000.
- 2. Vehicles which are specifically exempted by code.
- 3. Vehicles owned by any government agency.
- 4. Any vehicle owned or operated by a non-resident of California.

CVC 38021

Exempts a manufacturer, dealer, or distributer, or his agent from Green Sticker requirements, provided vehicle is accompanied by a special permit (dealer plate).

CVC Div 16.5 Chapter 5 Establishes rules for operating an OHV which can normally be applied to FS roads by using a road order and enforcing under 36 CFR 261.54. Applicability to trails or designated routes has not been determined.

#### Statewide Motorized Trail System

In 1981, the State contracted with EDAW to prepare a statewide OHV plan. One of its recommendations included the development of a North/South Trail that would traverse the State of California. Since then, users have generally accepted the fact that they will never be able to traverse the entire state in a green sticker vehicle. However, they strongly believe that most areas can be accessible to OHVs with some connections requiring street legal vehicles.

In 1988, the State extended the Green Sticker grant program and officially recognized the California Statewide Motorized Trail System and allowed for designation of trail segments. A Memorandum of Understanding is currently being developed between the State, BLM, and the Forest Service that will identify responsibilities. The proposed memorandum states that the Forest Service shall:

- 1. Plan and establish overall criteria for OHV management on the National Forests within the context of the Forest Land Management Plans.
- 2. Identify and evaluate site specific area or route locations for all OHV use within the National Forest as part of the development of the Forest OHV or travel management plan. Such evaluations shall ensure full compliance with NEPA.
- 3. Identify existing or planned routes that meet guidelines adopted by the OHMVR Commission and could provide long range touring opportunities for OHV users within the National Forest.
- 4. Identify segments to be constructed to complete a cross Forest route.
- 5. Identify possible connections with adjacent National Forests or BLM Districts that could allow OHV travel between units.
- 6. Designate suitable routes as funding is available, following completion of the Division's evaluation of statewide effects.
- 7. Operate and maintain the designated segments to ensure continuing OHV use as funding is available from State OHV grants or other sources.

The SMTS will use existing OHV routes to the greatest extent possible. Some connecting routes may be needed to tie use areas together and allow for long distance travel. Permanent segments would accommodate full width vehicles and would be equivalent to our level 2 roads. Some interim segments would be usable by ATVs while others would only be useable by motorcycles. Forest Supervisors have the authority to designate segments of FS level 3 roads as combined use roads which can be used by OHVs.

#### Statewide Motorized Trail System Segments

A segment is defined as the route that connects two nodes. A node can be a junction in the system, a staging area, a source of services, a camping location on the system, etc. A section is a piece of a segment.

#### PERMANENT SEGMENTS

In order for a segment (between any two adjacent nodes) to be designated as a permanent part of the Statewide Motorized Trail System, it must be a full width Forest Service Level 2 road or equivalent that is open to Green Sticker vehicles with unlicensed operators. It should be negotiable by other than beginner operators of all types of wheeled OHVs.

#### INTERIM SEGMENTS

A segment may be designated as an interim segment of the system, at any of several levels. It is understood that for economic, geographic or even political reasons, the interim status can last for years. The segment manager should, if possible, attempt to raise the level until it qualifies for permanent segment designation. The levels are:

- 1. A section of the segment is not passable to vehicles with a tread greater than 50 inches, but there is an alternate route for street licensed operators and vehicles. (Unlicensed buggies could not use the segment.) This level can be used for new construction, where full width is not economical at this time.
- 2. A section of the segment is not passable to vehicles with a tread greater than 24 inches but there is an alternate route for street licensed operators and vehicles. (Unlicensed buggies and all ATVs could not use this segment.) This level should only be used for existing sections and never for new construction.
- 3. A section of the segment is closed to all vehicles, but there is a "1201" alternate route. (All unlicensed operators could not use this segment.) This level should only be used as a true interim during the construction of a Level 1 interim or permanent section.
- 4. Same as Level 3 but no "1201". (All unlicensed vehicles could not use this segment.)

#### ALTERNATE ROUTES

The second kind of alternate sections are recreational. These can be for any vehicle width and any skill level. Typical examples would be ATV or motorcycle trails that bypass sections of easiest Level 2 road.

#### Recommendations

Based on existing OHV use and the opportunities identified within this paper, the Stanislaus National Forest should incorporate the following actions into a forestwide OHV Mangement Plan.

#### A. Land Management Planning

The terrain, soils, vegetation and private land mix on the Stanislaus National Forest do not lend themselves to open use. Users have indicated a preference for road and trail riding. OHV use should be managed as either closed or restricted with no open areas. If there are any small isolated areas, such as gravel pits, that may be considered by some as suitable for open use, the Forest Service should rehabilitate them.

- 1. Select OHV Alternative 4 (Restricted) for the preferred alternative in the Forest Plan.
  - a. Wilderness, Semi-Primitive Non-Motorized (SPNM), Wild Rivers and other special areas (Research Natural Areas, Special Interest Areas, National Trails, etc.) are all closed to OHV travel.
  - b. The remainder of the Forest is subject to OHV restrictions.

#### B. Implementation

The Forest must now follow through with positive actions that provide substitutes for the opportunity eliminated. Control of cross country use and management of OHV travel is dependent on the availability of a network of open roads and trails. Forest development roads, if properly managed, have the potential of adding significant OHV opportunities.

The literature indicates that OHV use in California has reached a peak and will continue at present levels through the year 2000. Therefore, the OHV program should not seek to increase or attract additional use, but rather seek to provide opportunities for existing use.

In order to develop a successful OHV program the Forest must first look at the road and trail system in an integrated fashion to determine if management is adequately addressing the needs of all of its user customers in a cost effective manner. Research has shown that OHV users will not be satisfied if most opportunities are on roads. Without trail opportunities, the user may be tempted to travel cross country.

The Forest can provide significant opportunities for OHVs but only in concert with adequate restrictions, education and enforcement.

- 1. Prepare an OHV Implementation Plan based on the preferred alternative and include it as an appendix to the Forest Plan.
  - a. Include the following use zones which will refine the basic land allocations of the Forest Plan:

- **ZONE A** OHVs prohibited.
- **ZONE B** Subject to seasonal closure as resource conditions warrant:
  - (1) Overland travel is restricted to designated routes.
  - (2) Oversnow travel by wheeled vehicles is limited to the surface of designated oversnow routes only.
  - (3) Cross Country oversnow travel is limited to vehicles designed specifically for oversnow use only.
- ZONE C Subject to seasonal closure as resource conditions warrant:
  - (1) Overland travel is restricted to designated routes.
  - (2) Oversnow travel is prohibited.
- **ZONE D** Subject to seasonal closure as resource conditions warrant:
  - (1) Overland travel is prohibited.
  - (2) Oversnow travel by wheeled vehicles is prohibited.
  - (3) Cross Country oversnow travel is limited to vehicles designed specifically for oversnow use only.
- SPECIAL Sensitive wildlife areas of Zones B, C and D that are subject to special seasonal closures:
  - (1) Bald Eagle habitat normally closed to all use 9/20-5/1. Allow no new construction of OHV routes and locate staging areas at least 1/2 mile from water bodies.
  - (2) Winter Deer areas normally closed to all use 11/1-4/15.
  - (3) Spotted Owl Habitat Areas (SOHA) normally closed to all cross country travel 3/1-8/1. Allow no new construction of OHV routes unless on a ridgetop boundary of SOHAs.
- b. Identify miles of all existing and proposed OHV routes. This is extremely important in light of the State's recent mandate to fund O&M at a flat rate of \$1,000/mile.
- c. Integrate moderate levels of road and trail (designated routes) travel with segments designated for either all or a specific type of OHV.
- d. Provide for loop routes of varying length, difficulty and riding times, laid out in a manner to protect the resources.
- e. Recommend certain eligible trail segments for the Statewide Motorized Trail System while coordinating with adjacent National Forests and BLM.
- f. Develop resource monitoring procedures.
- g. Manage OHV use as closed unless specified open.
- h. Increase the snowmobile trail grooming program as funds warrant.

#### 2. Provide comprehensive project level planning that:

- a. Incorporates control measures such as fencing and rehabilitation measures for presently disturbed areas.
- b. Involves interdisciplinary skills in trail construction, reconstruction and maintenance.
- c. Includes sign planning, installation and maintenance in contracts for construction and maintenance of roads and trails.

#### 3. Provide comprehensive user information and education programs that:

- a. Renew the "Host" program emphasis and training where needed.
- b. Include well done entry stations and bulletin boards at trailheads and contact stations.
- c. Provide professional quality signs, maps and brochures.
- d. Emphasize a conservation ethic through literature, handouts and radio announcements. In addition there should be a media effort in which OHV manufacturers are contacted and encouraged to utilize a new respect for natural environment, minimum impact message and perhaps an equally high profile direct campaign using traditional Forest Service images like Smokey or Woodsy with the message being the same: tread lightly, stay on roads and trails to protect our sport, our meadows and our environment.

#### 4. Provide appropriate levels of administration and enforcement.

- a. A Forest Service presence in the use area and application of law enforcement based on the need are essential.
- b. Forest Service personnel riding the type of OHV equipment used in the area. It is essential that these contact persons be well equipped with machine and safety gear and that they be qualified riders or drivers.
- Adequate signing must be incorporated and maintained on all routes.

#### 5. Protect basic land resources and minimize conflicts with other users.

- a. Roads that are not designated for OHV use must be closed to non-street legal vehicles.
- b. Roads that are not designated for OHV use and are not needed for public access should be closed to all use.
- c. OHV management must be coordinated with other resource activities to minimize conflicts.
- d. No open areas will be provided.

- e. No speed events will be authorized.
- f. Damaged areas must be closed to the use that caused the damage and should be rehabilitated immediately.

#### 6. Modify other resource activities to reduce potential OHV conflicts.

- a. Include an evaluation of OHV activities in timber sale, reforestation, fuelbreak, fire suppression and any other projects that may affect management of the OHV program.
- b. Woodcutters and dispersed campers should all be subject to the same OHV restrictions regardless of the type of vehicle used. Any vehicle entering the National Forest has the potential to become an OHV.

#### C. Monitoring

Monitoring the effects of OHV use is an important responsibility and part of the Forest Service mission to be effective land managers. Its importance is also highlighted in the new requirements for OHV funding from the State of California. All OHV development projects funded by the State must include monitoring requirements to ensure the conservation of soil and wildlife.

- 1. Public concerns and preferences should be monitored to identify issues as they arise.
  - a. Maintain and update the Forest OHV mailing list and periodically make OHV information available to the public.
  - b. Create a file for public comments and agency responses and review for trends and issues.

#### 2. Install resource monitoring procedures.

#### D. Cooperative Efforts

Partnerships can be developed with the State, industry, users and other federal and local agencies to develop a successful OHV program. State funding is significant and future grant requests will be evaluated for user input to ensure that grants go to areas that have successful programs or a high potential for success.

#### 1. Cooperative efforts should:

- a. Encourage users to work with local authorities to seek opportunities for hill climbs and moto-cross events on lands other than National Forest.
- b. Locate designated routes to avoid private lands unless there is an opportunity to develop a connected network of roads and trails.

- c. Stay in tune with the OHV user. Users are essential in laying out road and trail networks and organized groups are interested in the prevention of resource damage. User participation and support are essential ingredients to all projects, especially those proposed for State funding.
- d. Work with user organizations and vehicle dealers to identify needs, utilize volunteers and spread a conservation ethic.
- e. Strengthen work with the State and BLM to address joint management of trail networks and define roles.

#### Conclusion

The Forest Service recognizes OHV use a legitimate use of National Forest lands. The Stanislaus National Forest can and will provide OHV opportunities in appropriate locations while protecting the resources. OHV problems are not going away, but they can be successfully managed.

Other resource activities can effect management of the OHV program. A successful OHV program will require the efforts of all resource managers to insure that the effects on the program are positive.

With these points firmly in mind, the Stanislaus National Forest will soon become one of the "Centers of Excellence" characterized by managers and employees with positive attitudes towards OHV recreation and a commitment of time and resources to manage its use.

#### LITERATURE CITED

- Aasheim, R. Snowmobile Impacts on the Natural Environment. In, Off-Road Vehicle Use: A Management Challenge / Editors: Andrews, R. N. L., Nowak, P. F., pp.191-195. 1980, University of Michigan.
- Anderson M. W. Off-Road Motorcycling in the 1980s: What Does it Look Like? In, Off-Road Vehicle Use: A Management Challenge / Editors: Andrews, R. N. L., Nowak, P. F., pp.262-265. 1980, University of Michigan.
- Andrews, R. N. L., Nowak, P. F. Off-Road Vehicle Use: A Management Challenge. University of Michigan Extension Service. 1980, University of Michigan.
- Berry, K. H. The Effects of Four-Wheel Vehicles on Biological Resources. In, Off-Road Vehicle Use: A Management Challenge / Editors: Andrews, R. N. L., Nowak, P. F., pp.231-233. 1980, University of Michigan.
- Bridge, G. S. ORV Impact on Soil and Water Conservation Measures installed by the Soil Conservation Service and its Cooperators. In, Off-Road Vehicle Use: A Management Challenge / Editors: Andrews, R. N. L., Nowak, P. F., pp.176-182. 1980, University of Michigan.
- Bury, R. L., Fillmore, E. Design of Motorcycle Areas Near Campgrounds: Effects on Riders and Nonriders. 1974, Texas Agricultural Experiment Station, Texas A&M University.
- Bury, R. L. Impacts of Snowmobiles on Wildlife. In, Proceedings, 43rd North American Wildlife and Natural Resources Conference. Washington, D.C., Wildlife Management Institute, pp.149-156.
- Bury, R. L. What We Know and Do Not Know About Off-Road Vehicle Impacts on Wildlife. In, Off-Road Vehicle Use: A Management Challenge / Editors: Andrews, R. N. L., Nowak, P. F., pp.110-120. 1980, University of Michigan.
- California, Department of Parks and Recreation. The Off-Road Vehicle, A Study Report. Sacramento, 1975.
- California, Department of Parks and Recreation. Recreation Activity in California 1980-2000. Sacramento, 1980.
- California, Department of Parks and Recreation. Federal Grant Summary Report. Sacramento, 1987.
- California, Department of Parks and Recreation. Off-Highway Vehicle Program Application Procedures. Sacramento, 1988.
- Dorrance, M. J., Huff, D. E., Savage, P. J. Effects of Snowmobiles on White-Tailed Deer. In, Journal of Wildlife Management v.39(3) 1975, pp.563-569.

- Doyle, M. B. Progress in ORV Planning and Management of USDA Managed Lands: Snowmobile User's Perspective. In, Off-Road Vehicle Use: A Management Challenge / Editors: Andrews, R. N. L., Nowak, P. F., pp.183-190. 1980, University of Michigan.
- Dunnell, C. W. Protecting and Rehabilitating ORV Use Areas. In, Off-Road Vehicle Use: A Management Challenge / Editors: Andrews, R. N. L., Nowak, P. F., pp.100-102. 1980, University of Michigan.
- Harrison, R. T. Environmental Impact of Off-Road Motorcycles. In, Off-Road Vehicle Use: A Management Challenge / Editors: Andrews, R. N. L., Nowak, P. F., pp.266-269. 1980, University of Michigan.
- Jackson, E. L., Wong, R. A. G. Perceived Conflict Between Urban Cross Country Skiers and Snowmobilers in Alberta. In, Journal of Leisure Research v.14(1) Jan 1982. pp.47-62.
- Kemsley, W. ORV User Conflicts. In, Off-Road Vehicle Use: A Management Challenge / Editors: Andrews, R. N. L., Nowak, P. F., pp.234-237. 1980, University of Michigan.
- Kickbusch, W. L. Two-Wheel Vehicles. In, Off-Road Vehicle Use: A Management Challenge / Editors: Andrews, R. N. L., Nowak, P. F., pp.274-276. 1980, University of Michigan.
- Leonard, R. E. Research Needs for Managing Off-Road Motorcycles. In, Off-Road Vehicle Use: A Management Challenge / Editors: Andrews, R. N. L., Nowak, P. F., pp.277-281. 1980, University of Michigan.
- Makel, W. J. All Terrain Vehicles and Trailbikes in the Forest: A Management Approach. 1988, Outdoor Recreation Management Program, Clemson University.
- McCool, S. F., Roggenbuck, J. W. Off-Road Vehicles and Public Lands, A Problem Analysis. 1974, Department of Forestry and Outdoor Recreation, Utah State University.
- Motorcycle Industry Council, Inc. Motorcycle Statistical Annual. 1980 through 1988. Motorcycle Industry Council, Irvine, CA.
- Reames, D. S. Off-Road Vehicle Use as a Management Challenge. In, Off-Road Vehicle Use: A Management Challenge / Editors: Andrews, R. N. L., Nowak, P. F., pp.143-147. 1980, University of Michigan.
- Sanderson, D. W. Improving the Management of Two-Wheeled Vehicles: Education. In, Off-Road Vehicle Use: A Management Challenge / Editors: Andrews, R. N. L., Nowak, P. F., pp.270-273. 1980, University of Michigan.
- Suchovsky, W. A Private Landowner's Viewpoint. In, Off-Road Vehicle Use: A Management Challenge / Editors: Andrews, R. N. L., Nowak, P. F., pp.173-175. 1980, University of Michigan.
- Tocher, S. R. Four-Wheel Vehicles: Summary. In, Off-Road Vehicle Use: A Management Challenge / Editors: Andrews, R. N. L., Nowak, P. F., pp.286-289. 1980, University of Michigan.

USDA Forest Service. Draft Land and Resource Management Plan for the Stanislaus National Forest. 1986, USDA Forest Service, Washington, D.C.

USDA Forest Service. National ORV Activity Review Report. 1987, USDA Forest Service, Washington, D.C.

Wells, C. User Education. In, Off-Road Vehicle Use: A Management Challenge / Editors: Andrews, R. N. L., Nowak, P. F., pp.207-210. 1980, University of Michigan.

West, P. Snowmobiles: Summary. In, Off-Road Vehicle Use: A Management Challenge / Editors: Andrews, R. N. L., Nowak, P. F., pp.282-285. 1980, University of Michigan.

### APPENDIX



# Off Highway Vehicles

The Stanislaus National Forest completed an "Off-Highway Vehicle (OHV) Plan in 1979. Since then, demand for OHV recreation has risen sharply and resource impacts from open cross country overland OHV use have been identified. Also, nationwide Forest Service policy for overland OHV use has shifted away from the open cross country concept towards management of road and trail opportunities called designated routes (OHV's designed for oversnow use can still travel cross country oversnow subject to certain restrictions). As a result of the fires of 1987, the Forest is in the process of revising its Draft Forest Land and Resource Management Plan. The Forest Plan will evaluate and update the OHV Plan to include the policy and use changes that have occurred over the past decade.

Control of open cross country overland use and management of OHV travel is dependent on the availability of a network of designated roads and trails. Forest roads, if properly managed, can add significant OHV opportunities. Public participation and support is an essential ingredient to this project. Users are essential in laying out road and trail networks and organized groups are interested in the prevention of resource damage.

Some key issues that deserve special consideration in this planning effort have been identified. In order to develop a successful OHV program we need your comments on and/or help to:

- Inventory existing OHV use and identify opportunities for proposed OHV routes and staging areas.
- Designate routes of varying length, difficulty and riding times, laid out in a manner to protect forest resources.

- Monitor the effects of OHV use to conserve soil, protect water quality and minimize the effects on wildlife.
- 4. Locate designated routes to avoid private lands if at all possible.
- 5. Identify the need for seasonal closures to prevent resource damage and to reduce impacts on key wildlife areas.
- 6. Avoid conflicts with other types of use.
- Consider OHV use by unlicensed operators on certain road segments that are also open to general traffic.
- 8. Provide an appropriate level of education and enforcement.

Your help on these or any other OHV issue is welcomed. John Maschi, the Forest coordinator for the OHV Plan, can be contacted at (209) 532-3671 if you have any specific OHV questions. Your comments will be considered and incorporated into a proposed OHV Plan for the Stanislaus National Forest. The revised Draft Forest Plan is scheduled for completion later this year. At that time, you will have an opportunity to review and comment on the OHV Plan as well the entire Forest Plan. Please send your OHV comments in writing by February 10, 1989 to:

Stanislaus National Forest ATTN: OHV PLAN 19777 Greenley Road Sonora, CA 95370

Remember that the Forest Service recognizes OHV's as a legitimate use of National Forest lands. With your help, the Stanislaus National Forest can and will provide OHV opportunities in appropriate locations while protecting forest resources. Please fill out and return the attached coupon if you would like to receive future OHV information.

## College of Forest and Recreation Resources

**DEPARTMENT OF PARKS, RECREATION AND TOURISM MANAGEMENT** 



Stanislaus National Forest Attn: John J. Maschi 19777 Greenley Road Sonora, CA 95372

January 23, 1989

#### TO CONCERNED CITIZENS:

The Stanislaus National Forest completed an OHV plan in 1979. Since then, the Forest has experienced several major changes in OHV use and management:

- 1. Demand for OHV recreation opportunities has risen sharply.
- 2. Resource impacts from OHV use have been identified.
- 3. Funding has increased with State of California OHV grants.
- 4. The Forest is in the process of shifting from the open area concept towards management of road and trail opportunities.

As a result of these changes, the Forest needs to evaluate and update its OHV program. To help with this effort, I am developing a field project called "OHV Opportunities on the Stanislaus National Forest". This field project will be prepared as a student project in partial fulfillment of the requirements of the Professional Development for Outdoor Recreation Management Program at Clemson University. The objectives of this field project are to inventory existing OHV use, document opportunities using public involvement and make recommendations that may later be incorporated into a forestwide OHV Plan.

Your help on this OHV field project is welcomed. I have enclosed a survey and would greatly appreciate if you could take some time to look it over, answer as many questions as you can and return it to me. Please feel free to make additional copies for other family or group members. I can be contacted at (209) 532-3671 if you have any specific questions. Your answers and comments will be incorporated into my field project which is scheduled for completion this March.

Thank you very much.

Sincerely,

JOHN J. MASCHI Landscape Architect

Enclosure

# College of Forest and Recreation Resources

DEPARTMENT OF PARKS, RECREATION AND TOURISM MANAGEMENT

This survey was prepared as a student project in partial fulfillment of the requirements of the Professional Development for Outdoor Recreation Management Program at Clemson University. It in no way reflects USDA Forest Service policy nor are the opinions expressed those of anyone other than the author. Please enter your answers and send completed surveys by February 17, 1989 to:

Stanislaus National Forest ATTN: John J. Maschi 19777 Greenley Road Sonora, CA 95370

#### OHV OPPORTUNITIES ON THE STANISLAUS NATIONAL FOREST

	NAME:	PART I (optional)								
ΛD	-				<u> </u>					
ΑIJ	DRESS:	<del></del> .		<del>-</del> .						
	CITY:	·			<del></del>	STA	TE:	ZI	P:	
					PART I	ΞI				
1.		s your pri al Foothi					SF Bay A	rea ()	Other_	-
2.		or does and be used	for off		trave	1?				YES NO
3.	What types and how many of the following Off-Highway Vehicles (OHV's) do you own or operate?									
	4WD Show All Term Motorcyc Snowmobs		cle (ATV	7)		eet Leg	<u> </u>		eet Lega	I
4.		rcentage o		total ov On Trai			e (if an Cross Co			
5.		rcentage o		total <b>ov</b> On Trai			e (if an Cross Co	• .	<del></del>	
6.	a. Hours b. Miles c. Miles	your aver s per day s per day s per day s per day	on road on trai	ls: .ls:	(1) (0)	(2) (3) (1-10) (1-10)	(4) (5) (11 <b>-</b> 20) (11-20)	ollowing ) (6) (7 (21-30) (21-30) (21-30)	) (8) (9 (31-40) (31-40)	) (10+) (41+) (41+)

	· -		
7.	Do all of your non-street legal OHV's have a valid State of California Green Sticker?  a. List those that do not:	YES	NO
8.	Do all operators of your OHV's have a valid State drivers license?  a. Which type of OHV is used by unlicensed operators?	YES	NO
	<ul><li>b. What percent of total OHV use is by unlicensed operators?</li><li>c. Do unlicensed operators use forest roads open to general traffic?</li></ul>		
	d. Are the unlicensed operators familiar with the rules of the road? e. Do the unlicensed operators have any type of safety training?	YES YES	NO NO
9.	Do you believe that any of the different types of OHV's may not be compatible, in the same area, with each other?  a. Where and why?	YES	NO
10.	What sources of information have you used regarding OHV opportunities Stanislaus National Forest? (Check all that apply) ( ) FS Field Personnel ( ) Newspapers ( ) Other OHV Us ( ) FS Office Personnel ( ) Magazines ( ) OHV Club Inf ( ) FS Maps/Brochures ( ) Other (specify):	ers	
11.	What types of OHV information do you think the Stanislaus should pro	vide	<u>.</u>
12.	Do you operate an OHV on the Stanislaus National Forest?  If yes, go to the next question; if No, go to Part III.  a. How often, each year, in the following categories:  Overland? Spring Summer Fall Winter Oversnow?	YES	NO
13.	Which State Highway do you most often use to access the Stanislaus? ( ) 4 ( ) 108 ( ) 120		
14.	What specific areas, roads or trails on the Stanislaus do you use?		
		<del></del>	
15.	Do you have a favorite campsite or gathering area that you visit while operating your OHV on the Stanislaus?  a. What is its name and/or location?		
16.	Have you ever had contact with Forest Service (FS) personnel while you were operating your OHV on the Stanislaus National Forest?  a. What was the nature of the contact?		
17.	Rank, in order of importance, the main reasons for operating your OH Stanislaus National Forest? (Rank all that apply)  ( ) Motorized Recreation ( ) Viewing Scenery ( ) Hunting or F. ( ) Competitive Events ( ) Group Outings ( ) Enjoying Nat ( ) Woodcutting ( ) Other (specify):	ishir	

### PART III

18.	Is overland OHV use legitimate on certain National Forest lands?	YES	NO			
19.	Do you support the Forest Service policy allowing overland OHV travel only on designated routes?					
20.	Do you believe that open cross country overland OHV use should be allowed in all areas of the National Forest (excluding Wilderness)?	YES	NO			
21.	Do you believe that open cross country overland OHV use should be allowed in certain areas of the National Forest?  a. Where and under what conditions?	YES				
22.	Is oversnow OHV use legitimate on certain National Forest lands?	YES	NO			
23.	Do you believe that open cross country oversnow OHV use should be allowed in all areas of the National Forest (excluding Wilderness)?	YES	МО			
24.	Do you believe that open cross country oversnow OHV use should be allowed in certain areas of the National Forest?  a. Where and under what conditions?					
25.	Do you believe that open cross country oversnow OHV use should be prohibited in certain areas of the National Forest?  a. Where and under what conditions?					
26.	Do you believe that oversnow OHV use should be allowed only on designated routes?	YES	NO			
27.	Which of the following different types of use may not be compatible, same area, with overland OHV use on designated routes?(Check all that () Camping () Mountain Bikes () Timber Harve () Hiking () Private Property () Residential () Wilderness () Deer Winter Range () Deer Summer () Hunting () Fishing () Horseback Ri () Automobile Traffic () Resorts () Scenic Viewi () Roadless Areas () Other (specify):	at apply) est Areas Range iding				
28.	Which of the following different types of use may not be compatible, same area, with cross country oversnow OHV use? (Check all that appl () Camping () Mountain Bikes () Timber Harve () Hiking () Private Property () Residential () Wilderness () Downhill Skiing () Cross Countr () Hunting () Fishing () Horseback Ri () Snowplay () Resorts () Scenic Viewi () Roadless Areas () Other (specify):	y) est Areas y Ski ding	<b>;</b>			

29.	Can unlicensed operators use certain forest roads open to general traffic without creating safety hazards?  a. Where and under what conditions?	YES	NO
30.	Where should designated routes be located?		
31.	Where should OHV staging areas be located?		
32.	Would you support seasonal closures of designated routes and/or areas to prevent resource damage and to reduce impacts on wildlife?  a. Where and under what conditions?	YES	NO
33•	Are you a member of an OHV club, group or organization?	YES	NO
34.	Are you a member of an environmental club, group or organization?	YES	NO
34.	Are you an employee of the Forest Service or any other land management agency?	YES	NO
35.	Additional space is provided for answers to the previous questions o any additional comments: (Attach extra sheets if needed)	r for	·